

than are similar foods produced by other farming methods.

Pesticides and Herbicides

Do pesticides in foods cause cancer? Pesticides and herbicides can be toxic when used improperly in industrial, agricultural, or other occupational settings. Although vegetables and fruits sometimes contain low levels of these chemicals, overwhelming scientific evidence supports the overall health benefits and cancer-protective effects of eating vegetables and fruits.¹¹ At present, there is no evidence that residues of pesticides and herbicides at the low doses found in foods increase the risk of cancer. However, produce should be thoroughly washed before consumption.

Physical Activity

Will increasing physical activity lower cancer risk? Yes. People who engage in moderate to vigorous levels of physical activity are at lower risk of developing colon and breast cancer than those who do not.^{3,53,122} For some cancers, this risk reduction is independent of the impact of activity on weight. Data for a direct effect on the risk of developing other cancers are more limited. Nonetheless, overweight and obesity have been associated with many types of cancer,³ and physical activity is a key component of maintaining or achieving a healthy body weight. In addition, physical activity has a beneficial impact on cardiovascular disease and diabetes.¹⁵

Phytochemicals

What are phytochemicals, and do they reduce cancer risk? The term *phytochemicals* refers to a wide variety of compounds produced by plants. Some of these compounds protect plants against insects or have other biologically important functions. Some have either antioxidant or hormone-like actions both in plants and in people who eat them.¹⁷⁷ Because consumption of vegetables and fruits reduces cancer risk, researchers are searching for specific components that might account for the beneficial effects. There is no evidence that phytochemicals taken as supplements are as beneficial as the vegetables, fruits, beans, and grains from which they are extracted.

Saccharin

Does saccharin cause cancer? No. High doses of the artificial sweetener saccharin cause the formation of bladder stones that can lead to bladder cancer in rats. Saccharin consumption does not cause the formation of bladder stones in humans, though. Saccharin has been removed from the list of established human carcinogens by the US National Toxicology Program.¹⁷⁸

Salt

Do high levels of salt in the diet increase cancer risk? Studies in other countries link diets containing large amounts of foods preserved by salting (ie, salt-curing) and pickling with an increased risk of stomach, nasopharyngeal, and throat cancer. No evidence suggests that moderate levels of salt used in cooking or in flavoring foods affect cancer risk.

Selenium

What is selenium, and can it reduce cancer risk? Selenium is a mineral that contributes to the antioxidant defense mechanisms. Animal studies suggest that selenium protects against cancer, and one experimental trial has shown selenium supplements might reduce the risk of cancers of the lung, colon, and prostate.¹⁷⁹ However, repeated and well-controlled studies are needed to confirm whether selenium is helpful in preventing these cancers. High-dose selenium supplements are not recommended, as there is only a narrow margin between safe and toxic dosages. The maximum dose in a supplement should not exceed 200 micrograms per day.

Soy Products

Can soy-based foods reduce cancer risk? Soy-derived foods are an excellent source of protein and a good alternative to meat. Soy contains several phytochemicals, some of which have weak estrogenic activity and appear to protect against hormone-dependent cancers in animal studies. Presently, there are limited data to support a potential beneficial effect of soy supplements on reducing cancer risk.¹⁸⁰ Furthermore, adverse effects of high doses of soy supplements on the

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risk of estrogen-responsive cancers, such as breast or endometrial cancer, are possible.¹⁸¹ Breast cancer survivors should consume only moderate amounts of soy foods as part of a healthy plant-based diet, and they should not intentionally ingest very high levels of soy products in their diet or more concentrated sources of soy, such as soy-containing pills, powders, or supplements containing isolated or concentrated isoflavones.

Sugar

Does sugar increase cancer risk? Sugar increases caloric intake without providing any of the nutrients that reduce cancer risk. By promoting obesity and elevating insulin levels, high sugar intake may indirectly increase cancer risk. White (refined) sugar is no different from brown (unrefined) sugar or honey with regard to these effects on body weight or insulin. Limiting foods such as cakes, candy, cookies, and sweetened cereals, as well as high-sugar beverages such as soda, can help reduce sugar intake.

Supplements

Can nutritional supplements lower cancer risk? There is strong evidence that a diet rich in vegetables, fruits, and other plant-based foods may reduce the risk of cancer, but there is no evidence at this time that supplements can reduce cancer risk, and some evidence exists that indicates that high-dose supplements can increase cancer risk.^{182,183}

Can I get the nutritional equivalent of vegetables and fruits in a pill? No. Many healthful compounds are found in vegetables and fruits, and it is likely that these compounds work synergistically to exert their beneficial effect. There are likely to be important, but as yet unidentified, components of whole food that are not included in supplements. The small amount of dried powder in the pills that are represented as being equivalent to vegetables and fruits frequently contains only a small fraction of the levels contained in the whole foods. Food is the best source of vitamins and minerals. Supplements, however, may be beneficial for some people, such as pregnant women, women of childbearing age, and people with restricted dietary intakes. If a supplement is taken, the best choice is a balanced multivitamin/

mineral supplement containing no more than 100% of the "Daily Value" of most nutrients.

Tea

Can drinking tea reduce cancer risk? Some researchers have proposed that tea might protect against cancer because of its antioxidant content. In animal studies, some teas (including green tea) have been shown to reduce cancer risk,^{184,185} but epidemiologic studies have had mixed findings.^{186,187} Presently, tea has not been proven to reduce cancer risk in humans.

Trans-saturated Fats

Do trans-saturated fats increase cancer risk? Trans-saturated fats are produced during the manufacture of hydrogenated oils such as margarine or shortening to make them solid at room temperature. Recent evidence demonstrates that trans-fats have adverse cardiovascular effects, such as raising blood cholesterol levels.^{13,188} Their relationship to cancer risk, however, has not been determined. Regardless, it is recommended to consume as few trans-fats as possible.

Vegetables and Fruits

Will eating vegetables and fruits lower cancer risk? Yes. Greater consumption of vegetables and fruits has been associated in the majority of epidemiologic studies with a lower risk of lung, oral, esophageal, stomach, and colon cancer.¹¹ Because it is not known which of the many compounds in vegetables and fruits are most protective, the best advice is to consume five or more servings of a variety of colorful vegetables and fruits each day.

What are cruciferous vegetables, and are they important in cancer prevention? Cruciferous vegetables belong to the cabbage family, and include broccoli, cauliflower, Brussels sprouts, and kale. These vegetables contain certain chemicals thought to reduce the risk for colorectal cancer. The best evidence suggests that consumption of a wide variety of vegetables, including cruciferous and other vegetables, reduces cancer risk.^{11,12}

Is there a difference in the nutritional value of fresh, frozen, and canned vegetables and fruits? Yes, but they can all be good choices. Fresh foods are usually considered to have the most nutritional

value. Often, however, frozen foods can be more nutritious than fresh foods because they are often picked ripe and quickly frozen; nutrients can be lost in the time between harvest and consumption for fresh foods. Canning is more likely to reduce the heat-sensitive and water-soluble nutrients because of the high heat temperatures necessary in the canning process. Be aware that some fruits are packed in heavy syrup, and some canned vegetables are high in sodium. Choose vegetables and fruits in a variety of forms.

Does cooking affect the nutritional value of vegetables? Boiling vegetables, especially for long periods, can leach their content of water-soluble vitamins. Microwaving and steaming are the best ways to preserve the nutritional content in vegetables.

Should I be juicing my vegetables and fruits? Juicing can add variety to the diet, and it can be a good way to consume vegetables and fruits, especially for those who have difficulty chewing or swallowing. Juicing also improves the body's absorption of some of the nutrients in vegetables and fruits. However, juices may be less filling than whole vegetables and fruits and contain less fiber. Fruit juice, in particular, can contribute quite a few calories to one's diet if large amounts are consumed. Commercially juiced products should be 100% vegetable or fruit juices and should be pasteurized to eliminate harmful microorganisms.

Vegetarian Diets

Do vegetarian diets reduce cancer risk? Vegetarian diets include many health-promoting features; they tend to be low in saturated fat and high in fiber, vitamins, and phytochemicals.¹⁸⁹ It is not possible to conclude at this time, however, that a vegetarian diet has any special benefits for the prevention of cancer. Diets including lean meats in small to moderate amounts can also be healthful. Strict vegetarian diets that avoid all animal products, including milk and eggs, should be supplemented with vitamin B₁₂, zinc, and iron (especially for children and premenopausal women).¹⁹⁰

Vitamin A

Does vitamin A lower cancer risk? Vitamin A (retinol) is obtained from foods in two ways:

preformed from animal food sources, and derived from beta carotene in plant-based foods. Vitamin A is needed to maintain healthy tissues. Vitamin A supplements, whether in the form of beta carotene or retinol, have not been shown to lower cancer risk, and high-dose supplements may, in fact, increase the risk for lung cancer in current and former smokers.^{76,77}

Vitamin C

Does vitamin C lower cancer risk? Vitamin C is found in many vegetables and fruits, particularly oranges, grapefruit, and peppers. Many studies have linked consumption of vitamin C-rich foods with a reduced risk for cancer.¹¹ The few studies in which vitamin C has been given as a supplement, however, have not shown a reduced risk for cancer.

Vitamin D

Does vitamin D lower cancer risk? There is a growing body of evidence from epidemiologic studies (not yet tested in RCTs) that vitamin D may have beneficial effects on some types of cancer, including cancers of the colon, prostate, and breast.¹⁹⁰ Vitamin D is obtained through skin exposure to ultraviolet (UV) radiation, and through diet, particularly products fortified with vitamin D such as milk and cereals, and supplements. Many Americans, however, do not consume sufficient amounts of vitamin D.¹⁹¹ The current national recommended levels of intake of vitamin D of 200 to 600 IU¹⁶⁴ may be inadequate to meet needs, especially among those with little sun exposure, the elderly, individuals with dark skin, and exclusively breast-fed babies. More research is needed to define optimal blood and intake levels for cancer risk reduction, but recommended intake is likely to fall between 200 and 2000 IU, depending on age and other factors that modify vitamin D status. To minimize the health risks associated with UVB radiation exposure while maximizing the potential benefits of optimum vitamin D levels, a balanced diet, supplementation, and limiting sun exposure to small amounts are the preferred methods of obtaining vitamin D.

*Guidelines on Nutrition and Physical Activity***Vitamin E**

Does vitamin E lower cancer risk? Alpha-tocopherol is recognized as the most active form of vitamin E in humans and is a powerful biological antioxidant. A reduction in prostate cancer incidence was observed among men randomly assigned to receive alpha-tocopherol in the Alpha-Tocopherol Beta Carotene (ATBC) trial, a study that included only male smokers.⁷⁶ However, this association was not observed in the HOPE-TOO trial,¹⁹² in postintervention follow up of the ATBC trial,¹⁹³ or in two large prospective observational studies,^{194,195} and may have been a result of chance. While ongoing randomized trials^{196,197} will eventually provide further information, the promise of alpha-tocopherol as a cancer prevention agent appears to be dimming.

Water and Other Fluids

How much water and other fluids should I drink? Consumption of water and other liquids may reduce the risk of bladder cancer, as water dilutes the concentration of carcinogens and shortens the time in which they are in contact with the bladder lining.¹¹¹ Some studies suggest that adequate fluid consumption may also reduce the risk of colon cancer.¹⁹⁸ Drinking at least 8 cups of liquid a day is usually recommended, and some studies indicate that even more may be beneficial.

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Good Day,

I am Paul Kligfield, MD, and I speak today as the President of the New York State Chapter of the American College of Cardiology and as President-Elect of our educational affiliate, The New York Cardiological Society. I represent most clinical and academic cardiologists in New York City and New York State.

At a meeting of our State Council on October 14, 2006, the New York State Chapter of the American College of Cardiology endorsed the initiatives of the New York City Department of Health and Mental Hygiene regarding the phasing out of artificial trans fat and the listing of calorie content on menus in New York City. We applaud the leadership demonstrated by the Department in ensuring the health of New Yorkers.

It is established that atherosclerotic heart disease is the leading cause of death among New Yorkers. It is also established that trans-fatty acids increase the risk for morbidity and mortality of atherosclerotic disease by elevating levels of "bad cholesterol" (low density lipoproteins) and by reducing levels of "good cholesterol" (high density lipoproteins). Therefore, the continued use of partially hydrogenated vegetable oils (PHVOs), or trans-fat oils, in foods served in restaurants constitutes a risk to the health of New Yorkers. Most of the trans-fat in our diets is found in industrially-produced PHVOs used in frying, baking, and in processed foods. We note the particular dependence of working New Yorkers on commercial available food products during daily life. Experience in other settings suggests that PHVOs can be replaced with heart healthier alternatives without significant effects on taste or cost of preparation. It is therefore in the best health interests of all New Yorkers that the Department of Health amendment of Article 81 of the Health Code be adopted to restrict our food service establishments from using trans-fat products.

For similar reasons, we also endorse the labeling of calorie content of foods on menus, to help limit the impact of diabetes and obesity on the mortality and morbidity of New Yorkers by providing informed food choices in restaurants. We believe it is in the best health interests of all New Yorkers that the Department of Health amendment of article 81 of the Health Code be adopted to list caloric content of foods.

With regards to both amendments, we recognize the importance of food service industry commitment to change in the best interests of the population of New York. We look forward to solution of problems that might impede implementation of these resolutions, and we will be happy to assist the Department, the food industry, and our citizens in any way that will facilitate better health for all New Yorkers.

Thank you.



Michael D. Maves, MD, MBA, Executive Vice President, CEO

October 30, 2006

Ms. Rena Bryant
Secretary to the New York City Board of Health
125 Worth Street CN-31
New York, New York 10013

Dear Ms. Bryant:

On behalf of the American Medical Association's (AMA) physician and resident members, we applaud the efforts of New York City's Department of Health and Mental Hygiene to phase out artificial trans fats in all restaurants and to require calorie labeling in some restaurants.

As the obesity epidemic sweeps our nation, it is crucial that Americans begin to make healthier food choices. Obesity has become a major threat to public health today. It is causing problems in children that were unthinkable twenty years ago. Americans are eating about one-third of their calories outside the home, which is problematic because people tend to eat less healthy when they dine on restaurant foods. They consume more calories and saturated fat, fewer nutrients and less fiber. It is no surprise that restaurant foods are an important contributor to rising rates of obesity, heart disease and stroke.

Phasing out artificial trans fats in all restaurants is an innovative strategy to reduce New Yorkers' exposure to these harmful fats. The science on the dangers of trans fats is very clear. It raises cholesterol levels more than saturated fat. Many thousands of Americans die from heart disease due to excess trans fat consumption. In fact, the United States Food and Drug Administration (FDA) now requires labeling of trans fats in processed foods because of their negative effects on health. Any measure to limit exposure to trans fats will have a positive impact on the public's health.

In addition, the AMA supports requiring restaurants that have items common to multiple locations to provide standard nutrition labels for all applicable items, available for public viewing. By increasing consumers' awareness of what they eat, it is our hope that consumers will be more likely to think twice about eating unhealthy foods.

These proposed regulations are laudable. We wish New York City success in its efforts to improve the health of all of those who dine in New York City.

Sincerely,

Michael D. Maves, MD, MBA



For Immediate Release

Contact:

Rose Anello 212.673.1800 x 13 or 917.690.2869

Citizens' Committee for Children Supports Proposals to Phase-Out the Use of Trans Fats in Restaurants and Provide Calorie Labeling in Menus

Proposals will Reduce Obesity Rate and Improve Child Health Outcomes

(September 26, 2006, New York, NY) – Today Citizens' Committee for Children of New York (CCC) announced its support for two proposals that would amend the city's Health Code to phase-out trans fatty acids in restaurants and mandate calorie labeling in menus.

"For too many children and families, access to affordable, nutritious food is an impossible challenge. By phasing-out trans fats from restaurants, we will cut the obesity rate and improve health outcomes for children across New York City," said Gail B. Nayowith, Executive Director of Citizens' Committee for Children.

"Disclosure of caloric information on restaurant menus will allow parents to make better food choices that will improve their children's nutrition and promote life-long healthy diets and lifestyles," continued Nayowith.

"Eating habits today determine children's health tomorrow," continued Nayowith. "With obesity rates in the city more than double the national average – it is critical that the Board of Health adopt these proposals."

CCC, a 62 year-old child advocacy organization with a mission of ensuring that every child is healthy, housed, educated and safe believes that the proposals will go a long way in helping children, adolescents and families live healthier lives. Close to a quarter or 470,000 New York City children are obese, increasing the likelihood that they will develop diabetes and heart disease as adults. The two proposals will control the obesity epidemic that plagues New York City's children.

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Testimony of David R. Jones
President, Community Service Society of New York
Board of Health Hearing
October 30, 2006

I am David R. Jones, president of the Community Service Society of New York. For more than 160 years, the Community Service Society has been committed to improving the lives of New Yorkers trapped in poverty. Over the years, we have addressed numerous issues of health that are of concern to poor New Yorkers. Reducing artificial trans fat and calories in food are issues that go to the heart of the everyday life of low-income families.

I would like to congratulate the Department of Health for its initiatives to reduce the amount of artificial trans fat in the food the city's restaurants serve the public and to have many restaurants - especially fast food chains - list the calories of food on their menus. There was a time when New York City led the nation in the protection of food and clean water. I hope this legislation is the beginning of a return to that preeminence.

The department is proposing a partial phase-out that would remove most artificial trans fat from

restaurant cooking over an 18-month period.

Artificial trans fat is an unnecessary and dangerous ingredient in food. It has been shown to increase so-called bad cholesterol and lower good cholesterol, increasing the risk of heart disease. High caloric fast foods have been shown to lead to obesity.

What has all this to do with low-income New Yorkers, particularly people of color, the primary constituency of the Community Service Society? I see trans fat as a life and death issue for these communities, crossing boundaries from health to jobs to education.

It is not surprising that the five city neighborhoods which are ranked as the highest in the percent of residents living in poverty should also be the five neighborhoods ranked the highest in hospitalization rate per 10,000 of population for heart disease. The neighborhoods: Hunts Point/Mott Haven, Highbridge/Morrisania - both in the Bronx - Central Bronx, Bushwick/Williamsburg in Brooklyn, and East Harlem.¹ Poverty and ill health go together, and a major reason is the diets of poor people.

¹ U.S. Bureau of the Census, 2000; City of New York, 2005.

Cutting down on trans fat makes good sense for public health reasons. Our research at the Community Service Society has revealed a relationship between joblessness and the effects of poor health. Data from our recent annual survey of low-income New Yorkers, *The Unheard Third*, show a surprisingly high incidence of health problems among unemployed New Yorkers.

In our survey, 25 percent of respondents who were jobless mentioned health problems as a factor that made their search for a job difficult. This was a higher percentage than other, more obvious reasons - not enough prior experience (18 percent) and not enough education or training (17 percent).²

Trans fat is prominent in fast foods. The lack of access to fresh produce and the prevalence of fast food restaurants in many low-income neighborhoods have contributed to a dietary disaster, an epidemic of heart disease, diabetes, and obesity.

Low-income families, often paying more than half their earnings for rent, are left with an average of only \$30 a week per person to cover all other needs.³ This situation often forces them to skip meals or make

² *The Unheard Third*, Community Service Society, July/August 2006.

³ Victor Bach, *Making the Rent: Housing Hardship and Rent Burdens Among Poor New Yorkers*, Community Service Society, April 2005.

unhealthy choices such as fast food packed with trans fat.

The health problems of communities of color are well documented. According to a University of Michigan study conducted between 2001 and 2003, African Americans had higher rates than whites for three major chronic health problems: high blood pressure, diabetes, and stroke. The prevalence of diabetes and high blood pressure was especially high among African American women, with 35.4 percent reporting high blood pressure and 12.3 percent reporting diabetes.⁴

The prevalence of diabetes among African Americans is about 70 percent higher than among white Americans. Twenty-five percent of blacks between the ages of 65 and 74 have diabetes, including one in four black women 55 years of age or older.⁵ According to the National Diabetes Education Program, the prevalence of type-2 diabetes is two times higher among Latinos than among non-Latino whites.

Add to this the fact that African Americans and Latinos are much more likely to be uninsured than the

⁴ Black Americans: U-M study documents differences within the community, University of Michigan Institute for Social Research, University of Michigan News Service, January 22, 2004.

⁵ See BlackHealthCare.com.

rest of the population. In 2005, 14.1 million Latinos were without health insurance, an increase of 2.2 million since 2000. In 2005, the number of African Americans without health insurance was 7.5 million, increasing by 795,000 since 2000.⁶

The high incidence of these health problems in communities of color serves to undermine job retention, particularly among low-income workers engaged in physical labor. This is exacerbated by their lack of health benefits and paid sick days. Our survey revealed that among full-time low-wage workers, only 45 percent had health insurance and 46 percent got paid sick leave.

One result of welfare reform was the entrance of many single mothers of color into the work force. Many of their school age children are disproportionately latchkey kids who watch hours of television where they are bombarded by ads for sugar-laden greasy foods. They are easy prey to the junk food industry and the fast food chains that see them as markets they can readily exploit. The prevalence of junk food in schools - and the absence in many

⁶ U.S. Census Bureau, August 2006.

schools of physical education programs - only adds to the problem.

A steady diet of high caloric fast foods - laced with trans fat - is not only unhealthy for children, leading to obesity and, later in life, to diabetes and heart disease. Poor nutrition can seriously impair their ability to function well in school, damaging chances for an adequate education and job prospects. Seen this way, fast food diets are an impediment to a successful future for mostly poor African American and Latino youngsters.

Artificial trans fat kills at least 500 people in New York City every year, more than the number that die in motor vehicle accidents. Yet it is a problem that is solvable. The Department of Health determined that artificial trans fat can be easily replaced by healthier oils without changing the taste of foods.

Cutting down on trans fat and empowering consumers with nutritional information on restaurant menus are good moves. For communities of color, they will have benefits that go beyond matters of health, affecting many facets of everyday life.

We strongly support the Department of Health's initiatives.

Written Testimony

New York City Board of Health on the proposal by the Department of Health and Mental Hygiene to amend Article 81 of the New York City Health Code to require certain food service establishments to post calorie labels on their menus and menu boards, October 30, 2006

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Thank you for the opportunity to submit written comments on the proposal by the Department of Health and Mental Hygiene (the "Department") to amend Article 81 of the New York City Health Code (the "Health Code"), which requires certain food service establishments to make information about calorie content available on their menus and menu boards. We strongly support the proposal and commend the Department for this bold and much-needed step in addressing the high rates of overweight and obesity that affect more than half of New York City residents.

The shortened lifespan and chronic diseases such as diabetes, heart disease, stroke, high blood pressure, arthritis, and cancer that are associated with overweight and obesity could be prevented in part by combating high rates of these conditions in New York City. Providing New Yorkers with the knowledge with which to make informed food choices is a necessary component of a broader strategy to improve the health of City residents by reducing overweight and its public health consequences.

While numerous social, behavioral, environmental, and economic factors can affect an individual's risk for overweight and obesity, the immediate cause is energy imbalance: more energy (measured in calories) consumed for energy expended in physical activity.¹ Substantial research demonstrates that one significant factor contributing to obesity is the increasing frequency with which meals are consumed away from home; such foods are typically high in calories, relatively low in nutrients, and larger in serving size than those consumed at home.² Larger meals pose one other problem: consumers tend to underestimate their energy content.³

Today, consumers spend roughly half of their food dollars on meals prepared outside the home,⁴ and away-from-home foods comprise about one-third of Americans' total caloric intake.⁵ Thus, efforts to reverse obesity trends must necessarily engage food service establishments and consumers, as well as health professionals and Federal, state, and local governments. The intervention proposed by the Department furthers this engagement.

The proposed amendment should serve as an impetus for change both for consumer behavior and, ultimately, for the quality and quantity of food offered at food service establishments. We urge the Board to approve the proposal for the following three reasons:

1. *Consumers need accurate information about the calorie content of food to make informed choices.*

The absence of readily available information about calories at the point-of-purchase affects the ability of consumers to make informed food choices, often leading to inadvertent consumption of more calories than expected. Although the FDA requires nutrition information to be listed on the Nutrition Facts panels of the labels of packaged foods, this is not the case for foods prepared away from the home.⁶ Since neither Federal nor state laws require restaurants to post information about calories (or nutrients), consumers have inadequate or no access to information to support healthful choices of foods that comprise one-third of their daily calorie intake.

This information gap constitutes a significant environmental barrier to healthful food choices.⁷ Other factors exacerbate this gap. For example, consumers can be misguided by the flood of advertisements, marketing messages and techniques, and weight-loss and weight management claims to which they are exposed.⁸ Ubiquitous fast food "value marketing" promotes overconsumption of food through price incentives to buy larger portions of drinks, sandwiches, and meals.⁹ Buying larger portions for a few cents more can seem like a bargain that justifies excessive caloric intake.

Notwithstanding that certain restaurants are increasingly providing a wider range of food choices, consumers (and even nutrition professionals) typically underestimate the energy content of foods and meals by 30% to 50%; they typically underestimate calories in a single meal, for example, by 600 calories or more.¹⁰ In theory at least, errors this large could result in an intake of an additional 30,000 calories a year and an annual weight gain of approximately nine pounds.¹¹

Calorie underestimation, combined with industry claims and the absence of accurate information, can lead people to eat a full day's worth of calories in a single meal.¹² Many people, for example, do not realize that a 64-ounce soft drink contains 800 calories (kcal),¹³ more than the amount provided by a cheeseburger (530-760 kcal). It is difficult to imagine that a large chocolate shake may contain more calories than a large hamburger at certain popular fast-food chains.¹⁴ French fries add calories as do "supersized" and "value meals." Finally, consumers can be misled by menu items that are marketed or traditionally perceived as "healthy" options, but that contain more calories than expected.¹⁵

Point-of-purchase calorie information could engage consumers by providing them with the ability to compare options and make more thoughtful decisions before they order food. Although some restaurants voluntarily offer nutrition information, some restaurants offer information only on limited items, and the charts are rarely accessible. In most places, the existing information is difficult for consumers to find and use. A recent study on the availability of point-of-purchase nutrition information at the largest fast food restaurant in the country, for example, revealed that it was nearly impossible to obtain the information about items in a manner that would inform their decisions.¹⁶ Although several fast food chains provide nutrition information on their Web sites, consumers may not have computers or they cannot easily access the information at point of purchase. A study of the extent of nutrition information in chain table-service restaurants, found that while the majority provided it, point-of-purchase information was only available for the healthier items in the menu and was never available for children's menus.¹⁷

Considering that overweight and obesity are directly related to an individual's caloric imbalance, the implementation of mandatory calorie labeling should promote awareness of the caloric content of food and where it matters most: at the point of food decision-making.

2. Calorie labeling is a sound public health approach to the obesity epidemic and its consequences.

Overweight and obesity constitute a major public health threat to physical and economic health (see Appendix). As the number of overweight and obese people continues to rise, so will rates of morbidity and mortality and related medical treatments and costs. Actions by local government bodies, such as the Department of Health cannot be taken as isolated events, but rather as significant steps within national efforts to reduce and prevent this problem.

Whereas the financial costs of obesity can be quantified, it is more difficult to estimate the value of a person's life or quality of life. Obesity-related chronic diseases limit the freedom and quality of life of people who have such diseases. Preventing obesity and its consequences is a worthwhile goal. Although obesity has no single cause or solution, dietary improvements can help reduce disease risks.¹⁸ Because the present food environment promotes overconsumption of "junk" foods, active and direct intervention is needed to help consumers to make informed choices. Requiring food service establishments to post information about calories at the point-

of-purchase directly addresses environmental factors that contribute to consumer behavior.

Research indicates that disclosure of calorie and nutrition information at the point-of-purchase does indeed influence consumers' attitudes and intentions towards food, and diminishes preference for less-healthy items.¹⁹ Eighty-five percent of Americans view nutrition as important²⁰ and the use of food labels has been associated with choice of healthier foods.²¹ Providing calorie information at the point of decision will aid consumers in making sensible food choices.

Furthermore, this proposed public health strategy is widely supported by consumers. Numerous surveys indicate that 62% - 87% of Americans support requiring fast-food restaurants to display the calorie content of their foods on menus and menu boards.²² Almost two thirds (62%) support laws requiring nutrition labeling on restaurant menus and one third (34%) support laws requiring restaurants to offer lower prices on smaller rather than larger sized portions.²³ Such surveys suggest that if consumers find food labels to be useful when choosing packaged foods, they also will find such labels useful when choosing meals outside the home.

This proposal is likely to produce other beneficial effects. Point-of-purchase calorie information removes the need for guesswork. It also reveals the real "value" of certain meals—the tradeoff between price and unhealthy weight. Furthermore, a shift in consumer behavior toward lower calorie foods is likely to encourage the industry to place more healthy options on restaurant menus and, perhaps, generate competition to provide such options.

Although obesity affects people of all races and background, in New York City disproportionately high rates affect low-income people.²⁴ For example, forty-percent of the children in New York City's "Head Start" program were found obese or overweight.²⁵ Because low-income neighborhoods contain disproportionately large numbers of fast food establishments, the Department's proposal is likely to have an especially large impact in areas where it is most needed.

3. Narrowly tailored regulations pose a low burden for food service establishments.

The proposed amendment will not create a substantial burden on food service establishments as its scope is narrowly defined, covering an estimated 10% of such places in New York City. The requirement to post calorie information extends to establishments that make nutritional information publicly available on or after March 1, 2007. Therefore, those that

are affected will already have incurred the expense of determining the nutritional content of their meals. The only additional expense that they would incur in would be in incorporating the calorie data on their menus or menu boards, which is offset by the fact that most establishments already change their menus periodically.

The proposal asks this limited number of establishments to display only calorie information. While some studies recommend the inclusion of additional nutritional information such as fats, carbohydrates, proteins, sugars, weight management depends on balancing calories, no matter where they come from.²⁶ Emphasizing calories alone should have a significant impact on consumer behavior by making it clear that larger portions have more calories.

By approving the Department's proposed amendment on calorie labeling, the Board of Health would be setting the stage for change not only at the local level, but also across other states. To date, none of the state or Federal bills requiring nutritional information disclosure at food service establishments has been approved.²⁷ Therefore, the Board's favorable decision on this urgent issue will constitute an important precedent on a public health strategy to control and prevent obesity. The Department's calorie labeling initiative, along with its other preventive initiatives,²⁸ will help achieve its goals.

Mandatory calorie labeling is a risk mitigation strategy analogous to any other public health approach that encourages behavioral change such as banning cigarette smoking in public indoor establishments. New York City should not have to wait until overweight and obesity surpass tobacco smoking as the number one contributor of death in America in order to adopt these measures. We strongly encourage the Board to adopt the Department's proposed amendment to the Health Code.

Appendix: The importance of obesity as a public health problem

Unhealthy eating habits, overweight, and obesity are at the root of America's major public health challenges. The obesity epidemic represents a serious public health concern for New York City, and the Board is surely aware of the alarming national and local statistics: In the United States, an estimated 65% (130 million) of Americans are overweight and more than 30% are obese.²⁹ Unless the pace of development of these conditions is halted, it is expected that 40% of the population will be considered obese within the next five years.³⁰ Poor nutrition, overweight and obesity directly influence the leading causes of death in the United States – heart disease (for example, heart attack, congestive heart failure, high blood pressure, sudden cardiac death, chest pain and abnormal heart rhythm), stroke, cancer and diabetes.³¹ All of these are preventable chronic diseases. Overweight and obesity also increase the risk for respiratory heart problems, arthritis, sleep apnea (*i.e.*, interrupted breathing during sleep), pre-menopausal breast cancer in women, gall bladder disease, fatty liver disease, pregnancy complications, and depression.³²

As of 2001, an estimated 300,000 deaths per year were attributed to diet and weight-related diseases.³³ According to the Centers for Disease Control (CDC), it is expected that one in three U.S. children born in 2000 will develop diabetes mellitus in their lifetime because of obesity,³⁴ shortening the lifespan of the younger generation. According to some estimates, the total economic cost of obesity in the United States is about \$100 billion per year, including more than \$50 billion in avoidable medical costs, more than five percent of total annual health care expenditures.³⁵ In New York, obesity-related expenditures exceed \$6 billion per year.³⁶

The prevalence of overweight and obesity among New Yorkers is similar to that in the rest of the country.³⁷ In New York City alone, where three-quarters of a million residents are known to have diabetes, more than half of the population is overweight and one in five is obese (approximately 1 million).³⁸ New York City has been cited as having among the highest nationwide childhood obesity rates, with 21% of kindergarten children already qualifying as obese.³⁹ Almost half of the children in the City's public elementary schools are overweight,⁴⁰ and 29.5% of New York City high school students are overweight or obese.⁴¹ As these children grow, so will the rates of diabetes and other chronic diet-related diseases unless firm steps are taken to halt the growing epidemic. These statistics demand serious and urgent attention.

Notes

¹ U.S. Food and Drug Administration (FDA) and Center for Food Safety and Applied Nutrition (CFSAN). *Counting Calories, Report of the Working Group on Obesity*, at Appendix B - Text Boxes on Body Mass Index (BMI), Energy (Calorie) Balance, Carbohydrates and Other Macronutrient Contributions to Caloric Value, 2004 <http://www.cfsan.fda.gov/~dms/owg-appb.html> (accessed October 14, 2006)

² Nielsen, S. J., and B. M. Popkin. 2003. "Patterns and trends in food portion sizes, 1977-1998." *JAMA: The Journal of the American Medical Association* 289, (4) (Jan 22-29): 450-453.

See also, Ello-Martin, J. A., J. H. Ledikwe, and B. J. Rolis. "The Influence of Food Portion Size and Energy Density on Energy Intake: Implications for Weight Management." *The American Journal of Clinical Nutrition* 82, no. 1 Suppl (Jul, 2005): 236S-241S.749. See also, Young, L. R. and M. Nestle. "The Contribution of Expanding Portion Sizes to the US Obesity Epidemic." *American Journal of Public Health* 92, no. 2 (Feb, 2002): 246-249. See also, Guthrie, J. F., B. H. Lin, and E. Frazao. 2002. Role of food prepared away from home in the American diet, 1977-78 versus 1994-96: Changes and consequences. *Journal of Nutrition Education and Behavior* 34, (3) (May-Jun): 140-150.

³ Backstrand J., M. Wootan, L. Young, J. Hurley. *Fat Chance*. Washington, DC: Center for Science in the Public Interest (CSPI), 1997. 22. See also Wansink, B. and P. Chandon. "Meal Size, Not Body Size, Explains Errors in Estimating the Caloric Content of Meals." *Annals of Internal Medicine* 145, no. 5 (Sep 5, 2006): 326-332. See also, Young, L. R. and M. Nestle. "Expanding Portion Sizes in the US Marketplace: Implications for Nutrition Counseling." *Journal of the American Dietetic Association* 103, no. 2 (Feb, 2003): 231-234.

⁴ National Restaurant Association, *2004 Industry at a glance*, April 15, 2004, p 2.

⁵ Lin, B. Guthrie, J. Frazao, E. 1999. Away-from-home foods increasingly important to quality of American diet. USDA, Economic Research Service, Washington, D.C. Agric. Inf. Bull. 749.

⁶ Nutrition Labeling and Education Act (NLEA; P.L. 101-535). NLEA requires food manufacturers to include more nutrition information on their labels to assist consumers in selecting a healthful diet, and prohibits food manufacturers from making health claims on their labels that are permitted by the Department of Health and Human Services. Restaurants are exempt from the requirements under NLEA.

⁷ U.S. FDA/CFSAN *Counting Calories*, at Appendix G, Report from the Division of Market Studies Office of Scientific Analysis and Support.

⁸ U.S. FDA/CFSAN *Counting Calories*, 2004, at p. 7

⁹ National Alliance for Nutrition and Activity. *From Wallet to Waistline, the Hidden Costs of Super Sizing*, 2002, Washington DC. See also, Burton, S., E. H. Creyer, J. Kees, and K. Huggins. "Attacking the Obesity Epidemic: The Potential Health Benefits of Providing Nutrition Information in Restaurants." *American Journal of Public Health* 96, no. 9 (Sep, 2006): 1669-1675. See also, Nestle, M. "Increasing Portion Sizes in American Diets: More Calories, More Obesity." *Journal of the American Dietetic Association* 103, no. 1 (Jan, 2003): 39-40.

¹⁰ Backstrand J., et al. *Fat Chance*. at 22. See also, Burton, S. et al. "The Nutritional Content of Restaurant Foods: How Much do Consumers Now and Does it Matter?," M&PP Conference Proceedings (2004). See also, CSPI. *Anyone's Guess. The Need for Nutrition Labeling at Fast-Food and Other Chain Restaurants*. Washington, DC: 2003.

¹¹ Burton, S., E. H. Creyer, J. Kees, and K. Huggins. "Attacking the Obesity Epidemic: The Potential Health Benefits of Providing Nutrition Information in Restaurants." *American Journal of Public Health* 96, no. 9, at p. 1674 (Sep, 2006)

¹² CSPI. *Anyone's guess: The need for Nutrition Labeling at Fast-Food and other Chain Restaurants*. Washington, DC: CSPI, 2003, p. 7

¹³ Nestle, M., (2003), at p. 40.

¹⁴ CSPI. *Nutrition Labeling at Fast-Food and Other Chain Restaurants*. Washington, DC: 2005. http://www.cspinet.org/nutritionpolicy/Nutrition_Labeling_Fast_Food.pdf (accessed October 14, 2006).

¹⁵ Burton, S. et al., (2006), consumer reaction to chef's salad.

¹⁶ Wootan, M. G., M. Osborn, and C. J. Malloy. "Availability of Point-of-Purchase Nutrition Information at a Fast-Food Restaurant." *Preventive Medicine* (Aug 24, 2006).

¹⁷ Wootan, M. G. and M. Osborn. "Availability of Nutrition Information from Chain Restaurants in the United States." *American Journal of Preventive Medicine* 30, no. 3 (Mar, 2006): 266-268.

¹⁸ Keystone Forum. Away-from-home foods: Final report released by the keystone forum. 2006. *Health Care Food & Nutrition Focus* 23, (9) (Sep): 10-12.

¹⁹ Burton, S. et al (2006).

²⁰ American Dietetic Association. *Nutrition and You: Trends 2000 Survey* (2000).

<http://www.eatright.org/ada/files/trends02release7.pdf> (accessed October 19, 2006).

²¹ Neuhofer, M. et al. "Use of Food Nutrition Labels is Associated with Lower Fat Intake." *Journal of the American Dietetic Association* 99 (1) (1999): 1, pp. 45, 50, 53. See also, S.Y. Kim, R.M. Nayga, and O. Capps, "The Effect of Food Label Use on Nutrient Intakes: An Endogenous Switching Regression Analysis," *Journal of Agricultural Resource Economics* 25 (2000): 215-231.

²² Global Strategy Group. Study Conducted for the Center for Science in the Public Interest. "Public Support for Menu Labeling at Chain Restaurants," Sep 2003

http://www.espingt.org/new/pdf/census_menu_board_question.pdf (accessed October 14, 2006).

²³ Jacoby, Jacob, Robert W. Chestnut, and William Silberman. "Consumer use and Comprehension of Nutrition Information." *The Journal of Consumer Research* 4, no. 2 (Sep., 1977): 119-128. O'Dougherty, M., L. J. Harnack, S. A. French, M. Story, J. M. Oakes, and R. W. Jeffery. "Nutrition Labeling and Value Size Pricing at Fast-Food Restaurants: A Consumer Perspective." *American Journal of Health Promotion: AJHP* 20, no. 4 (Mar-Apr, 2006): 247-250, at 247.

²⁴ Testimony of Lynn Silver, Assistant Commissioner, New York City Department and Mental Hygiene, before the New York City Council Committee on Health Regarding the Obesity Epidemic, 2006, <http://www.nyc.gov/html/doh/html/testi/testi20040504silver.shtml> (accessed October 17, 2006).

²⁵ New York City Department of Health and Mental Hygiene and Administration for Children's Services/Head Start. *Obesity in Early Childhood*. Vol. 52006,

<http://www.nyc.gov/html/doh/downloads/pdf/survey/survey-2006childobesity.pdf>.

²⁶ Ness-Abramof, R. and C. M. Apovian. "Diet Modification for Treatment and Prevention of Obesity." *Endocrine* 29, no. 1 (Feb, 2006): 5-9. See also, U.S. FDA/CFSAN, *Counting Calories*, at p. 3.

²⁷ Fourteen states, the District of Columbia, the U.S. Senate, and the U.S. House of Representatives have introduced legislation that would affect chain restaurants.

²⁸ State of New York Health Department. *Strategic Plan for Obesity and Overweight Prevention*. Albany, NY: December 20, 2004,

http://www.health.state.ny.us/prevention/obesity/strategic_plan/docs/strategic_plan.pdf (accessed October 18, 2006). See also, Silver, Testimony.

²⁹ U.S. Department of Health and Human Services (DHHS). *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*. Rockville, MD: DHHS, Public Health Service, Office of the Surgeon General, 2001, <http://www.surgeongeneral.gov/topics/obesity/calltoaction/CalltoAction.pdf> (accessed October 17, 2006). See also, U.S. FDA/CFSAN, *Counting Calories*, at Box 1 – Facts and Figures on Overweight and Obesity.

³⁰ Morrill, A. C. and C. D. Chinn. "The Obesity Epidemic in the United States." *Journal of Public Health Policy* 25, no. 3-4 (2004): 353-366.

³¹ U.S. DHHS and Center for Disease Control and Prevention (CDCP). *Profiling the Leading Causes of Death in the United States Heart Disease, Stroke and Cancer 2005, Chronic Diseases: The Leading Causes of Death: New York*.

<http://www.cdc.gov/nccdphp/publications/factsheets/ChronicDisease/pdfs/NYYork.pdf> (accessed October 14, 2006).

³² U.S. DHHS. *Overweight and Obesity: Health Consequences*. Washington, DC,

http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_consequences.htm (accessed October 14, 2006).

³³ U.S. DHHS. *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*, 2001, at p. 1.

³⁴ U.S. DHHS, CDCP. *Overweight and Obesity: Frequently Asked Questions (FAQs)* 2006, <http://ezproxy.library.nyu.edu:2794/nccedphp/dnpa/obesity/faq.htm#adults> (accessed October 17, 2006).

³⁵ U.S. FDA/CFSAN. *Counting Calories*, 2004.

³⁶ State of New York Health Department. *Strategic Plan for Obesity and Overweight Prevention*. at p. 42.

³⁷ *Idem*.

³⁸ New York City Department of Health and Mental Hygiene. *NYC Vital Signs*, Vol. 4, No. 2, 2005, <http://www.nyc.gov/html/doh/downloads/pdf/survey/survey-2005obesity.pdf> (accessed October 17, 2006).

³⁹ Silver, Testimony.

⁴⁰ New York City Department of Health and Mental Hygiene and Administration for Children's Services/Head Start. *Obesity in Early Childhood*. Vol. 5, 2006, <http://www.nyc.gov/html/doh/downloads/pdf/survey/survey-2006childobesity.pdf> (accessed October 17, 2006).

⁴¹ State of New York Health Department. *Strategic Plan for Obesity and Overweight Prevention*. at p. 26

EXHIBIT 12

The Regulation to Require Calorie Labeling on Menus In New York City Food Service Establishments

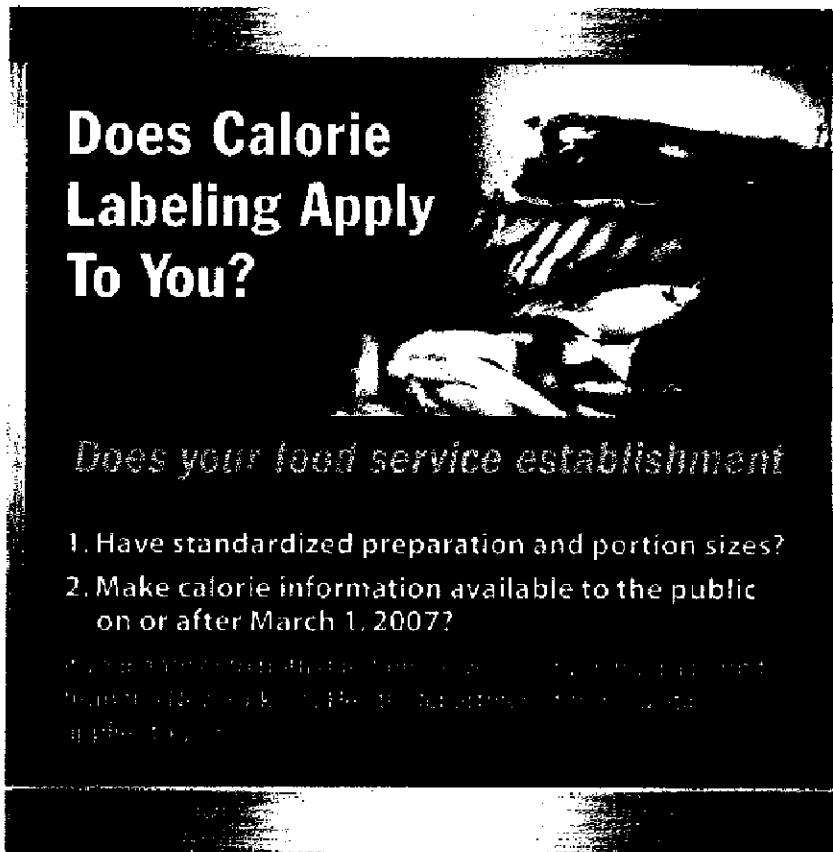
(Section 81.50 of the New York City Health Code)



| | Calories | Price |
|-----------------|----------|--------|
| Grilled Chicken | 390 | \$3.99 |
| Hamburger | 280 | \$0.99 |
| Cheeseburger | 300 | \$1.39 |
| Fish Filet | 450 | \$3.29 |
| Fries - Small | 300 | \$1.00 |
| Fries - Large | 600 | \$1.79 |
| Soda - Small | 150 | \$1.00 |
| Soda - Large | 300 | \$1.89 |

How to Comply:

What Your Establishment Needs to Know About Posting Calories on Menus and Menu Boards



Does Calorie Labeling Apply To You?

Does your food service establishment

1. Have standardized preparation and portion sizes?
2. Make calorie information available to the public on or after March 1, 2007?

If you are a food service establishment that has standardized preparation and portion sizes, and that makes calorie information publicly available on or after March 1, 2007, the regulation applies to you.

SUMMARY OF THE REGULATION

New York City's Health Code amendment requires some food service establishments that hold New York City Health Department permits to list calorie information prominently on menu boards and menus.

- **Beginning July 1, 2007:**

All food service establishments that have standardized preparation and portion sizes, and that make calorie information publicly available on or after March 1, 2007 (e.g., on Web sites, in brochures, or on posters, food wrappers or tray liners) must post calorie information prominently on menus and menu boards.

- The regulation does NOT apply to food service establishments that have not made calorie information available to the public.
- Only about 10% of New York City restaurants are affected by the regulation.

BASIC FACTS ON CALORIE LABELING

1. What is calorie labeling?

Some food service establishments make calorie information available through Web sites, brochures, posters, wrappers or tray liners. The new regulation will help ensure that customers see this information at the point of purchase, where it can help them make informed choices.

2. Why focus on calories?

New Yorkers get a third or more of their calories away from home. The lack of readily available calorie information in food service establishments makes it easy to consume too many calories without realizing it. Just 100 extra calories every day adds up to 10 pounds a year. Extra pounds can lead to obesity, diabetes, and heart disease.

COMPLYING WITH THE REGULATION

3. How do I know if the calorie labeling regulation applies to my establishment?

The regulation applies only to food service establishments that are required to hold New York City Health Department permits, that have standardized preparation and portion sizes, and that make calorie information publicly available on or after March 1, 2007. The regulation applies to all menu items for which calorie information is made publicly available (e.g., on Web sites, in brochures, or on posters, food wrappers or tray liners), either by the establishment or on its behalf.

4. When does the regulation take effect?

The regulation takes effect on July 1, 2007.

5. Where and how do I have to post the calorie information?

On menu boards, calorie counts should be posted in a size and typeface at least as large as the name or price of the menu item, whichever is larger.

On other menus, calorie counts should be legible and should be printed in a size and typeface at least as large as the name or price of the menu item.

"Calories" or "cal" should appear as a heading above a column listing the calorie count for each menu item, or next to the count listed for each item. This label should be at least as large as the calorie counts themselves (**Example 1**).

Example 1. Menu Board

| | Price | Calories |
|----------------------------|---------------|------------|
| Grilled Chicken | \$3.99 | 390 |
| Crunchy Chicken | \$3.89 | 490 |
| Fish Filet | \$3.29 | 450 |
| Hamburger | \$0.99 | 280 |
| Cheeseburger | \$1.39 | 300 |
| Extra Big Hamburger | \$4.29 | 540 |
| Fries – Small | \$1.00 | 300 |
| Fries – Large | \$1.79 | 600 |

If a food service establishment wants to use an alternative format to display calorie information on menus and menu boards, it may do so as long as the alternative display is just as prominent and visible at the point of purchase and is pre-approved by the Health Department.

To request approval for an alternative display, send an e-mail with your proposal to calorielabeling@health.nyc.gov.

6. What if an item comes in several flavors?

For menu items that come in different flavors and varieties but are listed as single menu items (e.g., beverages, ice cream, pizza or doughnuts), the display must show the calorie range for each size offered (**Example 2**).

Example 2. Menu Board with Different Flavors

| | Calories | Price |
|---|----------------|---------------|
| Small Coffee | 5 | \$0.99 |
| Vanilla Mocha Wonder Whip | | |
| Small | 300 | \$2.75 |
| Medium | 420 | \$3.50 |
| Large | 590 | \$4.00 |
| Super Thick Shake (banana, vanilla or chocolate) | | |
| Small | 400-450 | \$3.00 |
| Medium | 500-560 | \$3.50 |
| Large | 700-770 | \$4.00 |

ENFORCEMENT

7. When the calorie labeling regulation takes effect, will the Health Department issue violations?

Yes. The Department will issue violations beginning July 1, 2007.

8. Will calorie labeling violations be counted as 'critical' or 'general'?

Violations will not be counted as either critical or general, nor will they count toward your food service establishment inspection score.

9. Will the Health Department follow up on calorie labeling violations?

Yes. Any food service establishment violating the calorie labeling regulation will receive a follow-up inspection to determine compliance.

10. Will calorie labeling violations be posted on the Health Department's Restaurant Inspection Web site?

Yes. Violations will be posted beginning July 1, 2007.

11. How much will I be fined if an inspector finds my establishment in violation of the calorie labeling regulation?

Administrative Tribunal hearing officers may assess fines between \$200 to \$2,000. Penalty amounts will increase for repeated violations.

12. Will I be fined as soon as the regulation takes effect?

No. There is a 3-month grace period. No fines will be assessed between July 1 and October 1, 2007.



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THE NEW YORK CITY DEPARTMENT
of HEALTH and MENTAL HYGIENE
Michael R. Bloomberg, Mayor
Thomas R. Frieden, MD, MPH, Commissioner



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